















































Mfg. No. Description 1694538 Ballast Box

### **Simplicity**

MANUFACTURING, INC. 500 N. Spring Street / PO Box 997 Port Washington, WI 53074-0997 USA

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he above parts group applies to the following Mfg. Nos.: 694538 - Ballast Box	

NOTE: Unless noted otherwise, use the standard hardware torque specification chart.

This attachment not serviced by Simplicity. Please contact the following attachment manufacturer for service parts, service information, & technical literature.



# **Kwik-Way Manufacturing**

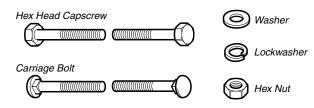
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1694538 - Ballast Box

## **Hardware Identification & Torque Specifications**

#### **Common Hardware Types**

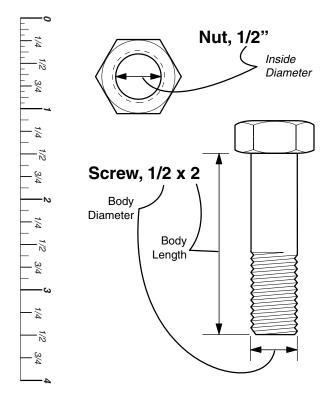


#### Standard Hardware Sizing

When a washer or nut is identified as 1/2", this is the Nominal size, meaning the inside diameter is 1/2 inch; if a second number is present it represent the threads per inch

When bolt or capscrew is identified as 1/2 - 16 x 2", this means the *Nominal size*, or *body diameter* is 1/2 inch; the second number represents the *threads per inch* (16 in this example, and the final number is the *body length* of the bolt or screw (in this example 2 inches long).

The guides and ruler furnished below are designed to help you select the appropriate hardware and tools.



### **Torque Specification Chart**

FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)

Hardware Grade	No Marks SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.	in/lbs ft/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	27	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

#### **NOTES**

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- 2. Recommended seating torque values for locknuts:
  - a. for prevailing torque locknuts use 65% of grade 5 torques.
  - b. for flange whizlock nuts and screws use 135% of grade 5 torques.
- 3. Unless otherwise noted on assembly drawings, all torque values must meet this specification.

#### Wrench & Fastener Size Guide



1/4" Bolt or Nut Wrench—7/16"



5/16" Bolt or Nut Wrench—1/2"



3/8" Bolt or Nut Wrench—9/16"



7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"



1/2" Bolt or Nut Wrench—3/4"